DOCUMENT RESUME

ED 326 583 TM 015 955

AUTHOR Clements, Barbara S.; And Others
TITLE Making Education Data More Meaningful.
SPONS AGENCY National Center for Education Statistics (ED), Washington, DC.
PUB DATE Apr 90
NOTE 32p.; Paper presented at the Annual Meeting of the American Educational Research Association (Boston, MA, April 16-20, 1990).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Descriptive (141)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Comparative Analysis; Data Analysis; *Data Collection; *Educational Assessment; Educational Planning; Elementary Secondary Education; *National Surveys; Program Descriptions; Program Evaluation; *Public Schools; Research Methodology; *State Surveys; Technical Assistance
IDENTIFIERS Common Core of Data Program; *Educational Information; *Education Data Improvement Project

ABSTRACT

A project is described that helps states provide more comparable, complete, and timely educational information for the annual Common Core of Data (CCD) to be used for policy-making decisions. The Education Data Improvement Project (EDIP), funded by the National Center for Education Statistics, began in the fall of 1985. In the first phase/year, the focus was on the Public Elementary/Secondary School Universe and the Public Elementary/Secondary Education Agency Universe Surveys. In the second phase/year, the project examined the information provided in the fiscal portions of the CCD. During the third phase/year, focus was on state-aggregate staffing data reported in the State Nonfiscal Survey. At the beginning of each project phase, state education agencies were asked to provide their most recent data collection instruments and supporting documents. EDIP staff reviewed the documents, developed state profiles of data collection, and identified elements for which states cannot provide comparable data. Technical assistance plans have been developed for the first phase of the project; these will be revised for the states as additional information is collected. Areas of particular concern due to incompleteness or lack of comparability of data were: (1) student and school counts; (2) demographic and descriptive data; (3) high school completion rates; (4) per pupil expenditures; and (5) staffing data. (SLD)

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MAKING EDUCATION DATA MORE MEANINGFUL

Barbara S. Clements
Daphne Kwok
Council of Chief State School Officers

John Sietsema
National Center for Education Statistics

Tom Tobin
Council of Chief State School Officers

Paper presented at the annual meeting of the
American Educational Research Association
Boston, Massachusetts
April 20, 1990

This paper was written as part of a project funded by the U.S. Department of Education's National Center for Education Statistics. The opinions expressed are those of the authors, not of the funding institution.

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Barbara S. Clements
John P. Sietsema
Daphne Kwok
Thomas J. Tobin

Over the past six years, the education reform movement has highlighted the need for more comparable and appropriate data for making policy decisions and comparing state efforts to improve the quality of the public schools. Because the reporting of data on public schools to the Federal Government is mostly voluntary and because state education agencies collect different types of data to meet their own specific needs, a cooperative effort between the states and the Federal Government has been necessary to move toward the development of a more comprehensive and comparable set of data on public education.

This paper describes a project charged with helping states provide more comparable, complete and timely data on public school students, staff, revenues, and expenditures to the Federal Government in the annual Common Core of Data. Many of the data collected in this set of surveys are used in comparing states in U.S. Department of Education publications as well as in indicator reports developed by organizations such as the Council of Chief State School Officers and the National Governors' Association. Differences in states' data collection activities, definitions, and timelines which could have an effect on the comparability of data reported have been identified and specific guidelines developed for revising states' data collection or crosswalking collected data into desired formats. Differences in state education systems discovered in this project will be presented and discussed.

Background

Since 1867, one of the responsibilities of the U.S. Department of Education (and its precursors) has been to collect and disseminate statistics on the condition of public education. Over the years, the Department of Education has followed the policy of working with and through the state education agencies to gather the information it is charged to collect. Since there is no legal mandate or penalty with regard to states' obligation to provide the data, the Department has relied on the good will and cooperation of the states to get what are, for the most part, comparable and complete statistics on public education.

The data collection format and the data elements requested have changed over the years. A major event in the development of this database was the creation of a "Handbook" series undertaken by the Office of Education in 1951 at the specific request of the Council of Chief State School Officers. Handbook I, "The Common Core of State Education Information," was published in 1953 after extensive collaboration of Federal staff, representatives of all the states, and other interested parties such as private school and professional education associations. The first handbook specified 516 items of data which should be maintained in common by all the States. As the years went by, requirements for different types of data and concerns about how data are used and the paperwork burden have brought about changes in the elements collected for the database.

In the mid-1980's, it became clear that more and better data were needed for making policy decisions on public education. In 1984, the Secretary of Education released the first in a series of "Wall Charts" comparing states on various "indicators" of public education.

Included in the original chart, "State Education Statistics," were rankings for each state and the District of Columbia on average student achievement on standardized college aptitude tests (the SAT and the ACT), graduation rates, pupil-teacher ratios, average teacher salary, Federal funds as a percent of school revenues, current expenditures per pupil, and expenditures as a percent of income per capita. In addition, states were ranked on various population characteristics such as per capita income, percent poverty ages 5-17, median years education of adults, minority percent of enrollment, and handicapped percent of enrollment. Data on these variables came from a variety of sources, including the National Center for Education Statistics, Educational Testing Services, American College Testing Program, National Education Association, and the U.S. Bureau of the Census.

The use of these statistics to rank states was questioned for two reasons: validity of the indicators and the quality and consistency of the data used. Many researchers such as Wainer and his colleagues (1985) questioned the use of SAT and ACT scores as an indication of average achievement in public schools because of inappropriate aggregation and self-selection of examinees. Issues concerning the comparability and quality of the indicators in the Wall Chart were raised by the Council of Chief State School Officers, among others, because states collect different types of data, according to different definitions and using different timelines.

In 1984, after the appearance of the first Wall Chart, the Council of Chief State School Officers adopted a position paper on Education Evaluation and Assessment in the United States which stressed "the role and responsibility of states to provide leadership to improve the information by which education is monitored and evaluated in this country" (Selden, 1987). Included in this position paper was a call for the commitment of various

actors in the education community to work towards more comparable terms and definitions of education statistics.

As part of this commitment, the Council agreed to develop a set of education indicators "with which valid and reliable comparisons can be made between states and the Nation and among states" (CCSSO 1984 Position Paper, p. 5). The Council agreed to include as indicators only those categories for which comparable and complete data could be obtained.

In addition, a project was undertaken by the Council, the states, and the National Center for Education Statistics to work towards the development of more comprehensive, timely, and comparable information on education. This project, the Education Data Improvement Project, resulted in recommendations to the states and the National Center for Education Statistics (NCES) concerning the collection of more useful data elements in the annual Common Core of Data and the standardization of the definitions of data elements used by states to report data to NCES.

The Common Core of Data Surveys completed by state education agencies each year have been the focus of the data improvement efforts. The following sections include descriptions of the surveys and the Education Data Improvement Project.

Common Core of Data

The Core National Education Statistical Database is currently maintained by the National Center for Education Statistics, which is a part of the Department of Education's Office of Educational Research and Improvement (OERI). The purposes of the Core National Education Statistical Database are:

1. to provide the official listing of all schools (approximately 87,000) and school districts (approximately 16,000) in the country's public education system,
2. to provide basic descriptive information on the nation's schools and schooling,
3. to provide information on the financing and costs of schools and schooling, and
4. to provide a sampling frame for major national studies on education.

A set of surveys, called the Common Core of Data, are used to obtain information on the public schools from the state education agencies.

There are four surveys which are submitted to each state education agency each year: the Public Elementary/Secondary School Universe Survey, the Public Elementary/Secondary Education Agency Universe, the State Nonfiscal Survey, and the National Public Education Financial Survey. These surveys are sent out in one package at the end of December for the current school year, which generally runs from July through the following June. The due date for all components is March 15. Generally, about 20 states submit responses by the end of March and another 20 by the end of April. Nearly all surveys are submitted by the end of May; however, there are usually some special problems which cause some data submissions to be delayed until midsummer. Data editing continues through the summer and into the fall. Final "clean" data are usually available by October for the previous school year.

The Common Core of Data surveys collect data on the following data elements:

Public School Universe (data on all public elementary and secondary schools reported in operation during a school year)

Name, address and telephone; name of the district or other agency

which operates the school; codes for school type and locale; full-time equivalent number of teachers assigned; number of students, by grade and racial/ethnic category; and number of students eligible for free lunch program.

Public Education Agency Universe (data on all public elementary and secondary school districts or other education agencies reported in operation during a school year)

Agency name, address, and telephone number; codes for agency type, county, and other selected characteristics of the agency; student counts; and counts of graduates and other completers.

State Nonfiscal Survey (aggregated data on students and staff for each state)

Fall membership by grade; full-time equivalent teachers and other staff by major employment category; and high school graduates and other completers.

State Fiscal Survey (selected fiscal statistics related to elementary and secondary education aggregated to state totals)

Revenues by source; current expenditures by major function; average daily attendance; and per pupil expenditures.

Data obtained from these surveys are disseminated in numerous Department of Education publications, including various NCES "E.D. TABS," the Directory of Public Elementary and Secondary Education Agencies, The Digest of Education Statistics, The Condition of Education, and the "Wall Chart." In addition, the data are included in publications of other organizations such as the Council of Chief State School Officers and

the National Governors' Association. Common Core of Data tapes and diskettes are also used by Government agencies and other organizations to provide sampling frames and demographic information useful in targeting projects or announcements to specific categories of schools or education agencies.

The four data files within the Common Core of Data can be used to obtain information about many topics of interest to policymakers, researchers, and the public. Some of the issues which may be addressed by these data files include the following:

* Size of school and pupil/teacher ratio
* Size of school district and region of the country
* Locale of school and racial/ethnic composition
* Racial/ethnic composition of students and pupil/teacher ratio
* Locale of school and percent of free lunch eligible students
* Grade level and pupil/teacher ratio
* Size of school district and number of handicapped students
* Students by grade level and number of graduates
* State expenditures for instruction and expenditures per pupil

Education Data Improvement Project

The Education Data Improvement Project (EDIP), funded by the National Center for Education Statistics, began in the Fall of 1985. The goals of the original project were to describe state collection of data elements contained in the Common Core of Data, to describe those elements that might be added to make the Common Core of Data more adequate and appropriate for reporting on the condition of the nation's public schools, and

to make recommendations to states and to the NCES for making the Common Core of Data more comprehensive, comparable, and timely.

In October 1988, the Education Data Improvement Project entered into a new contract with NCES to extend the work of the first project. Specifically, the project was to develop a Technical Assistance Plan for every state which includes information about each data element for which complete or comparable data cannot be provided. Included in the Technical Assistance Plan is a description of each problem, a list of factors contributing to the state's inability to provide the data (such as state board rules or laws), a proposed solution to each problem, suggested technical assistance activities which could help the state provide the data, and a timeline for the provision of the data.

Methods

Original Project. During the first year of the original project, the focus was on the Public Elementary/Secondary School Universe and the Public Elementary/Secondary Education Agency Universe Surveys. These surveys contain information on school type, school grade span, student enrollment, number of teachers in each school, and number of high school graduates in each district. In the second year, the project examined the information provided in the fiscal portion of the Common Core of Data, including details about public school revenues, expenditures, and student attendance. During the third year, the project focused on state-aggregate staffing data reported in the State Nonfiscal Survey. Included in this survey are full-time equivalency counts of teachers, instructional aides, guidance counselors/directors, librarians, administrators, and other professional and support staff.

At the beginning of each project year, the state education agencies in all states, the District of Columbia, and the extra-state jurisdictions of Puerto Rico, Northern Mariana Islands, Guam, the Virgin Islands, and American Samoa were asked to provide the most recent data collection instruments and supporting documents used to collect data from staff, schools, and local education agencies. NCES provided the current federal handbooks from the State Educational Records and Reports Series, including Financial Accounting for Local and State School Systems (1957, 1972, and 1980), Staffing Accounting: Classifications and Standard Terminology for Local and State School Systems (1974), and Combined Glossary: Terms and Definitions From the Handbooks of the State Educational Records and Reports Series (1974).

EDIP staff reviewed states' documents to determine the procedures and definitions states use for data collection and the extent of information collected. A modified Delphi technique was used to document state definitions and procedures and to describe how they differ from NCES reporting requirements. Specifically, definitions of each data element were entered by project staff next to the NCES definition on a "shuttle" instrument. Also included was documentation of levels of measurement and instruments used. The shuttle for each state was then sent to the state's Common Core of Data Coordinator for verification or revision. Based on the information in the shuttles and conversations with the Coordinators, project staff developed state profiles of data collection, and identified data elements for which states cannot provide comparable data in the Common Core of Data.

For each of the three areas of focus, the project convened task forces comprised primarily of data experts from state education agencies to help develop recommendations for expanding and improving the collection of information in the Common Core of Data.

After the recommendations were approved by the Council of Chief State School Officers, they were submitted to NCES. Many of these recommendations have been implemented by NCES; others are still under consideration.

Technical Assistance Plan Project. During the first phase of this project, the focus was on the data elements included in the Public Elementary/Secondary School Universe and the Public Elementary/Secondary Education Agency Universe Surveys. The second phase, which will focus on the State Nonfiscal Survey and the National Public Education Financial Survey, begins April 1, 1990.

Because many changes were made in the Common Core of Data Surveys, and because many states revised their data collection activities over the years of the project, thorough reviews of states' data collection documents and procedures were necessary. Project staff created preliminary lists of problems which were mailed to Common Core of Data Coordinators. In telephone conversations, project staff were able to clarify issues or to obtain further information about existing problems. Project staff used this information to develop a Technical Assistance Plan. In addition, problems with NCES definitions or procedures were identified and recommendations were developed. During the second phase of the project, Technical Assistance Plans from the first phase will be revised and additional problems added.

Results

Variations have been found in how states collect and report data on schools, students, fiscal data, and staffing. Included in this section are findings related to data elements which are commonly used to describe or track progress in the public schools.

Student Counts

Fall Membership. Each fall, on or around October 1, states are expected to count the number of students in membership in the public schools. The expectation is that only students in prekindergarten programs through grade 12 will be included. Student membership is reported in the CCD in three ways: 1) by grade level in each school, 2) as a total for prekindergarten through Grade 12 and a total for Ungraded students in each district, and 3) a state aggregate by grade level.

In some states, the aggregations of data reported in categories 1 and 2 are equal to the state aggregated total number of students. In other states, there are students who appear in the state aggregate total but not in school counts or, more rarely, in district counts. In these instances, there are students who are provided educational services through homebound, correspondence, or other special programs or institutions.

Some states do not currently report students served in school programs that are not funded through the states' foundation schools programs. For instance, schools for the deaf and blind are not included in the CCD by eight states. Four states do not report data on laboratory schools run by universities. Students receiving educational services through prison systems are not reported by five states. Other categories which may not be included in one or more states are vocational education programs, if they are not considered school districts or schools within a district, and special education students who are served at home or in special institutions. As a result, the number of students served by public education are being under-represented in these states. States have concerns about reporting data on students in these programs because the funding is handled differently making it hard to separate out the expenditures that go solely for education and not room and board, and

because the nature of these programs might skew the public school data. An example is the pupil/teacher ratio. Most of these institutions provide instruction in very small groups; thus, the ratios of teachers to pupils are much lower and the expenditures are much higher.

Summer School. Data on summer school programs are not specifically requested in the CCD, but there is an assumption that states with programs will include expenditures and average daily attendance with regular school year data in the CCD. In general, most states have indicated that no data are collected or only limited data are collected. Since summer school is for the most part not mandated or legislated, the variance in programs is considerable. Summer school programs may be classes which are solely remedial in nature, regular academic or vocational courses, enrichment programs, or magnet programs. Some programs are free to students, some are free only to remedial students, and some are completely tuition-based. As a result, very little is known about summer school programs and the numbers of students served.

In thirteen states, no summer school data are collected. Two of these states noted that since they do not provide state funding for summer school, they have no need for the data. One extra-state jurisdiction does not hold any summer school programs.

Most states collect only limited summer school data. Nine states and the District of Columbia provide data on enrollment, Average Daily Attendance, or Average Daily Membership. Five states maintain fiscal data primarily because of Federal or state aid funding requirements. Eight states and one extra-state jurisdiction collect data on summer graduates. Other elements collected by states are length of the program, expenditures, test scores, and dropout data.

Ungraded Students. Variations also exist in how or whether states report data on

ungraded students. The CCD's ungraded student count category is supposed to include "classes or programs to which students are assigned without standard grade designation." Thirty-seven states, the District of Columbia, and two extra-state jurisdictions report ungraded student counts. Another state will be reporting data in this category this year.

Not all states have an ungraded student count category, however. Three states attach a grade level to every student according to age, because their funding formula is based on the number of children per grade. Other states which do not rely on counts for funding also place students into grade levels by age.

The types of students placed in ungraded categories also differ from state to state. Most states place special education students into the ungraded category. In one state, there is a preschool combining different ages and levels, and all students are considered ungraded. Several states have indicated that prekindergarten students are included in this category because the prekindergarten program is a special education program, and all special education students are reported in this category. Another state really does not have an ungraded category, but reports incarcerated youth kept on LEA roles in this category, since they are not considered dropouts. It is possible that these students are being double-counted. Another state has an entire district that has no grades; therefore, all the students are considered ungraded.

Prekindergarten Students. Problems also exist with the reporting of prekindergarten students. The major problem with prekindergarten student counts is that they are incomplete. States are directed to report students in "a group or class that is part of a public school program, is taught during the year or years preceding kindergarten, and excludes Headstart students." Since prekindergarten programs are not mandated in all

states, the extent and types of programs differ from state to state.

Twenty states and the District of Columbia report prekindergarten data. Twelve states report only special education prekindergarten students. Three states and an extra-state jurisdiction collect limited data, while eleven states and one extra-state jurisdiction do not collect prekindergarten data either because there are no programs or because the students are counted in another category. Three states indicated they will be collecting data this school year.

Most of the states that do not have complete data indicated that their states do not require or fund prekindergarten programs. Some states indicated that the local school districts may have prekindergarten programs, but they are totally funded by the LEA; hence, the state does not have any need for prekindergarten data. States that have special education prekindergarten programs have the counts because they are required to report them to the Federal Government, which provides the program funds.

Other reporting variations in this category cause the data to be incomplete or not comparable. In addition to the few states in which prekindergarten special education students are reported as ungraded students, at least one state indicated that counts were not available for prekindergarten students served at home. Another state indicated that it funded prekindergarten programs on a certain number of seats per program. In this state, the actual number of participating students is not available; only the number of seats funded is available. One final source of non-comparability is the reporting of Head Start students in the prekindergarten category, which is done by six states.

Demographic/Descriptive Data

In addition to counts of students, states are requested to provide data which would describe the nature of the students in the schools or school districts. These data can also be used to identify a sample of schools or school districts for special studies or surveys. The demographic and descriptive items requested are 1) counts of students by race/ethnic category in each school, 2) counts of students in each school who are eligible for free lunches (a proxy for socio-economic status), and 3) counts of students with special education individualized education programs in each district.

Race/Ethnic Data. For each school, states are requested to provide the number of students in each of the five standard race/ethnic categories used in all government surveys. The categories are: American Indian or Alaskan Native, Asian or Pacific Islander, Hispanic, Black and non-Hispanic, and White and non-Hispanic. Not all states collect race/ethnicity data at the present time. In addition, the project found several problems which resulted in non-comparability or incomplete data.

Eight states currently do not report race/ethnic data in the CCD. Some states indicated that they were unwilling to collect race/ethnic data from the schools if they did not need them for any other reason than to provide them to the Federal Government in the CCD. One state indicated that the only race/ethnic data available were from the Federal Office of Civil Rights, which maintains records based on visual determination of a student's race.

Other states collect race/ethnic data according to different categories than the ones requested in the CCD. One state collects data in only two categories: black and white. In one extra-state jurisdiction, data are not reported to NCES because the data collected do

not fit into the five standard categories. Another extra-state jurisdiction does not use one of the categories. Eight states and one extra-state jurisdiction are presently expanding their data collection of race/ethnicity data, although some states will take several years to implement the changes. For the 1989-90 school year, data should be available for 41 states and one extra-state jurisdiction.

Free Lunch Eligibility. Counts of students who are eligible to receive free lunches are available for schools in 24 states. At least three of these states estimate the counts by prorating school district data to schools or using data from previous years. Most of the states currently not providing these data do not have the data at the school level. States generally require only a district total to be reported. Another problem described by some states is the fact that sometimes a school food program may serve more than one school, and the state does not feel it can accurately prorate the data to all of the schools involved in each program.

While the inclusion of these data on the school universe database would be valuable, the collection and reporting of these data by states may be considered too burdensome. States which currently do not collect these data at the school level indicate they have no use for these data and they would not like to impose the extra reporting requirements on the local school districts. In addition, there are concerns about confidentiality, since there may be schools where all students are eligible for free lunches. In these schools, individual students would be identifiable as "poor." It is unlikely that major changes will be made in the non-providing states until and unless the benefits of these data can be proved.

Special Education IEP Counts. The agency universe survey requests a count of all students having a written Special Education Individualized Education Program as mandated

by P.L. 94-142. This count is supposed to be duplicative of the counts of Ungraded and Prekindergarten-Grade 12 Counts provided for each district, since some special education students may be served in ungraded classrooms, while others are served in regular classrooms. Currently, ten states, the District of Columbia and one extra-state jurisdiction do not report these data. Two states, however, will begin reporting these data this year.

High School Completers

The National Center for Education Statistics currently reports high school completer data in two categories: Regular Diploma Recipients and Other Completers. The first category is used to compute for each state a "High School Graduation Rate," which is used in state-by-state comparisons such as the Wall Chart. The second figure, obtained by adding together three categories reported by states (Other Diploma Recipients, High School Equivalency Recipients, and Other High School Completers), is reported only in summary tabulations. Each state is asked to report all four categories for each school district and for the state as a whole.

Each of the four CCD categories is specifically defined, yet some states either do not report data or they report data which are not comparable in each of these categories. In part, the reasons for non-comparability are due to the way completer categories are defined and collected by the states. State policies sometimes cause some of the four categories to be non-applicable. In some instances, states do not collect data at a specific enough level to report according to the recommended categories. In other instances, states do not report data according to the NCES definitions. All of these instances cause the data to be either not comparable or incomplete.

The Regular Diploma Recipients category is reported by all states in the CCD, both for school districts and as a state total. For 13 states, this is the only completer category reported. An additional 14 states and the District of Columbia report only the Regular Diploma Recipients and the state aggregate figure for High School Equivalency Recipients. Four states report High School Equivalency Recipients at both the agency and state aggregate level.

For some states, only high school diplomas are given; no other type of certificate is awarded. Therefore, if the student does not get a diploma for completing the required Carnegie Units and all state testing requirements, then that student receives no diploma or certificate. In some states, special education students receive a diploma for completing all of the requirements of the Individualized Education Program. The result of these state policies is that the Regular Diploma Recipients category may be higher for states who give all completers identical diplomas and lower for states that give certificates of completion or attendance to special education students and students that do not meet all state requirements for a regular diploma.

The placement of students in categories other than where they are supposed to be placed represents definitional disagreement. Several categories of completers are particularly problematic: special education students who do not meet all of the requirements for a regular high school diploma, students completing adult education programs, students receiving certificates of completion or attendance, and students receiving a high school equivalency certificate.

Special education students are given regular high school diplomas in 24 states. We do not know how many of these states give diplomas only to special education students who

complete regular high school requirements, but we know that at least some states give diplomas to special education students completing their Individualized Education Program. Nine states are reporting special education students who are completers, but not regular diploma recipients as either Other Diploma Recipients or Other Completers. Other states have told us that they do not count the number of special education students who complete the IEP but not the requirements for a regular diploma.

Adult education completers are reported as Other Diploma Recipients by 7 states, as High School Equivalency Recipients by 1 state, and as Other Completers by 1 state. It is not clear whether or not adult education completers are being reported by the other states. There is evidence that in most states they are not included in counts of public school completers, because adult education records are not included with pre-kindergarten through grade 12 records.

Completers who receive certificates of completion or attendance are supposed to be included in the count of Other Completers. Eleven states provide these data in this category. Three states report data in this category, but we cannot be sure who is included. In four other states, however, recipients of certificates of completion or attendance are reported as either Other Diploma Recipients or High School Equivalency Recipients.

Recipients of a high school credential based on passing the General Educational Development (GED) Tests who are age 19 or younger are supposed to be reported in the category High School Equivalency Recipients category. For the most part, these programs are offered only through the state, not through local school districts, hence NCES only receives state aggregate data for these 19 states. Problems also exist with these data because eight states indicated that they provide counts of all GED credential recipients, no

matter what age they are. In addition, two states place these completers in different categories because the name of the credential is a diploma or certificate.

Per Pupil Expenditures

Per Pupil Expenditures is used as an indicator of a state's dedication of resources to public education. This ratio is computed for each state by dividing the reported Current Expenditures figure by the reported Average Daily Attendance figure. The definition for each of these data elements is included in the Chapter 1 legislation because this figure is used to determine allocations to states for Chapter 1 and other federal programs. The project identified differences in states' reporting of both component figures of the Per Pupil Expenditures formula. According to the Education Consolidation and Improvement Act of 1981 (P.L. 97-35, ECIA) Amended by the Hawkins-Stafford Act of 1988 (P.L. 100-297), states are supposed to report

> ...expenditures for free public education, including expenditures for administration, instruction, attendance, and health services, pupil transportation services, operation and maintenance of plant, fixed charges, and net expenditures to cover deficits for food services and student body activities, but not including expenditures for community services, capital outlay, and debt service, or any expenditures made from funds granted under this Chapter, Chapter 2 of the title, or Chapter 1 or 2 of the Education Consolidation and Improvement Act of 1981.

The 1980 Federal handbook, Fiscal Accounting for Local and State School Systems, specifies that expenditures should be for elementary/secondary programs through grade 12. Specific accounting categories are included or excluded reflecting the Chapter 1 definition.

Current Expenditures. The project discovered that some states varied in what types of expenditures were included or excluded. In part, these problems were due to the use of older Federal accounting handbooks. When the project collected accounting manuals from the states in 1987, it was found that 23 states use an accounting system that closely conforms to the most current Federal handbook. On the other hand, at that time, 17 states used handbooks similar to the 1973 Federal handbook, 8 states used handbooks similar to the 1957 Federal handbook, and 3 states had their own state systems. Since 1987, several of the states using the oldest Federal handbook have revised their systems to conform more closely to the current Federal handbook. Other states have made minor adjustments that make reporting the data more comparable.

Some of the differences uncovered include the reporting of Adult Education expenditures by 5 states and the reporting of Community/Junior College expenditures by 2 states in the Instructional Expenditures category. One state was not including Central Support Services expenditures in the Support Services Expenditures category. In the Non-Instructional Expenditures category, 3 states did not include net Food Services Expenditures and 2 states did not include net Enterprise Expenditures. On the other hand, 4 states inappropriately included Community Service Expenditures and 2 states inappropriately included Capital Outlay and Debt Services Expenditures. Other areas of non-comparability were the inclusion of expenditures for non-public students for transportation, textbooks and other services. Problems also existed with regard to expenditures for computers and software, summer school, and other programs.

Most of these problems have been eliminated through several efforts of NCES. The fiscal data collection survey was redesigned based on the recommendations made by the

project in 1987. In addition to more detail on revenues and expenditures, the new survey form now includes sections for specifying expenditures which are supposed to be removed from the computation of the Current Expenditures. Further, NCES has funded a crosswalk project which is being conducted by Pelavin Associates. Through this project, states have been given the protocols needed to crosswalk data into the appropriate categories. The result is more comparable data on Current Expenditures.

Average Daily Attendance. For the Average Daily Attendance figure, states are directed to use state definitions if they exist, or in their absence, to use the NCES definition. The NCES definition calls for states to report "The aggregate days of attendance of a given school during a reporting period divided by the total possible number of aggregate days school is in session during the school year." If schools have varying lengths of terms, states are supposed to sum the average daily attendances obtained for the individual schools. The project found that out of 49 states and the District of Columbia, 33 states use the NCES definition and 8 states use a similar definition. Comparability problems exist in states using state mandated figures. These differences include 2 states which compute ADA using a set percentage of a membership count, 2 states which collect ADA over a pre-set period of time, 4 states which compute ADA using a set percentage of a membership count over a pre-set period of time, and 1 state which includes students with excused absences in the ADA.

The results of these areas of non-comparability may be an over-statement or under-statement of a state's Per Pupil Expenditure figure and the receipt of more or less Federal funds than a state deserves.

The project recommended that, in addition to working with states to get more

comparable and complete fiscal data, NCES should work toward obtaining an Average Daily Membership figure for states. It was felt that membership better represents how schools plan and would be more comparable if states collected the data. However, Average Daily Membership currently is not available from 11 states, and 3 states collect ADM over a shortened period of time. As a result, the project recommended that NCES report a Per Pupil Expenditure figure using the Fall Membership Count. This count of students, made on or around October 1 of each year, is one of the more comparable figures reported by states in the CCD. It was felt that dividing Current Expenditures by Fall Membership would provide a better basis for comparing states on Per Pupil Expenditures.

Staffing Data

States are requested to provide staffing data on two surveys. On the Public School Universe Survey, the total number of classroom teachers for all graded and/or ungraded classes in the school, stated in Full Time Equivalency (FTE) amounts, is requested. On the State Nonfiscal Survey, total FTE counts are requested for Teachers (prekindergarten, kindergarten, elementary, secondary, and ungraded), Instructional Aides, Elementary Guidance Counselors/Directors, Secondary Guidance Counselors/Directors, Librarians, Library Support Staff, Officials and Administrators, Administrative Support Staff, School Administrators, School Administrative Support Staff and All Other Support Services Staff. In addition to publishing these data for descriptive purposes, the figures are used to compute pupil/teacher and pupil/administrator ratios.

Variations in how data are reported are generally due to differences in definitions from the NCES definitions or the states' inability to report FTE counts. Data for all but

two states are available. Thirty-one states report FTE counts or estimated FTE counts for all of the staffing categories requested. Thirteen states collect FTE counts for some categories (usually certified staff categories), but have problems collecting FTE counts for one or more non-certified staff categories (such as aides and other support staff). Five states can provide only head counts of staff at this time.

States appear to be able to provide comparable counts of classroom teachers using the NCES definition in the Public School Universe Survey; however, variations exist in how teachers are reported in the elementary and secondary categories. For instance, 7th grade teachers in some states might be considered elementary teachers, while in other states they are considered secondary teachers. This problem, however, is even more complex, since within states and even school districts, these variations can exist. As long as data are asked for in these two categories, elementary and secondary, and states are allowed to put teachers in either category as they see fit, this source of non-comparability will continue to exist.

Definitions for other staffing categories differ in some states. In some instances, states do not have definitions; hence, the project could not assess the comparability of the data. Two states indicated they could not separate Instructional Aides from other types of aides for reporting, and eleven states indicated they did not have a definition for Instructional Aides. Of the 49 states, the District of Columbia and five extra-state jurisdictions that reported, two states did not report a count for Instructional Aides.

For the 1988-89 school year, data were reported by all but two states in all of the other staffing categories. One other state reported data in all other staffing categories except for Other Support Staff. By and large these data are definitionally comparable, although some of the data are head counts instead of FTE counts. Recommendations made

by the project for the collection of staffing data included slight revisions to definitions and categories of staff and the suggestion that descriptive data on demographics, experience, and subjects taught (for teachers) be collected in order to make the database more useful.

Discussion

The use of data from the Common Core of Data is problematic in the areas where non-comparability or incompleteness exists. Unfortunately, the data are in most cases the best data that exist, and there is a high demand for these data by policy makers and other interested parties.

Student and School Counts. One area of particular concern in regard to comparability, is obtaining a complete count of students in public schools, including the students in prekindergarten programs. In some states, the only prekindergarten programs are special education programs. In these cases, either state data collection managers have the data because they report it to the Federal Government, or the Special Education Office collects the data and handles the reporting. In other cases, state education agency personnel indicate they believe that some local school districts fund and operate prekindergarten programs for students who are not identified as Special Education students. State education agency staff members, however, appear to be hamstrung in the collection of complete data either by legal reporting requirements, resources (both human and money), lack of interest, lack of expertise, or a combination of the above. Increased interest at the Federal, state and local levels in programs for children under the age of 5 will probably be required before significant progress can be made in obtaining complete prekindergarten student counts.

Obtaining a complete count of schools is also needed. The National Center for Education Statistics requests that all public schools be included in the School and Agency Universe Surveys. There are some states, however, that currently do not collect data on some schools, particularly special education schools which are funded under a different formula or by a different agency. Concerns about the effect on pupil/teacher ratios and per pupil expenditures are understandable; however, we will not have a complete picture of how our children are served by public programs if particular groups are left out.

Demographic/Descriptive Data. Reticence by states to collect and report demographic data requested by NCES is often expressed as lack of need for the data by the state or an unwillingness to collect the data just for the Federal Government. Over the past five years, the amount and types of data state education agencies have been required to collect have changed primarily due to local and state needs for data, not Federal demands. For example, data on race/ethnicity are provided by school districts to the U.S. Department of Education's Office of Civil Rights in five standard categories, even though state education agencies may only collect two or three categories. Recently, project staff was told by the state education agencies in California and Alaska that they are being pressured by special interest groups to collect race/ethnic data in more than five categories. As long as these categories can be aggregated into the five standard Federal categories, there is no problem with comparability. While the states that do not currently provide or have plans to provide race/ethnic data in the CCD may not feel pressure to change at this time, changes may be brought about due to needs for the data from within the state.

Issues associated with the collection of free lunch eligibility are more complex, however. The Food and Nutrition Services (FNS) Program is sponsored by the U.S.

Department of Agriculture, and there are very specific guidelines for the collection and reporting of data on eligibility. Some state education agencies have requested permission to use free lunch eligibility as an individual indicator of socio-economic status in analyzing student achievement data. In general, however, information on individuals is not supposed to be available. There is concern that at the school level there could be problems with confidentiality if school lunch eligibility were reported. That is, students attending a school with 100% eligibility would be identifiable as poor. The most compelling reason for not providing data, however, appears to be the paperwork issue. The FNS Office in each state collects a lot of data from districts, but nothing on schools. Even though school data exist at the district level, the collection of school counts could be considered excessive, in terms of paperwork burden or data overload in some states. The utility of these data must be very compelling to state education agencies in order to obtain full cooperation from the states.

High School Completion Rates. The high visibility of the high school graduation rate in comparing states' public schools and the utility of the data for other purposes may be compelling enough to get full cooperation from the state education agencies in standardizing these data. The apparent lack of understanding of issues associated with the graduation rates has hampered the efforts to get comparable data. In addition, differences in states' policies about graduation cause some states to collect incomplete or non-comparable data. However, we expect recent work in this area and increased interest in these data to encourage states to collect better data in this area.

Per Pupil Expenditures. This is one area where there are Federal mandates for data. States have been providing very limited, highly aggregated information in the CCD in recent years. These data are supposed to exclude specific types of data, and the expectation is that

the data are auditable. Closer scrutiny of these data by Pelavin Associates in a project they are doing for NCES has indicated that there were some problems with the computation of the per pupil expenditures figures based on the expenditure reports. In response to the work of the Education Data Improvement Project, the work of Pelavin Associates and a report from the General Accounting Office, NCES has increased the number of data elements requested from states which should facilitate the computation of the appropriate current expenditure figure, and they have increased the support to states in technical assistance and training. Revisions to the citation specifying the computation of average daily attendance are being considered as a way of increasing comparability in this area.

Staffing Data. Efforts are underway to improve the comparability and comprehensiveness of data reported in the CCD and other NCES data collection efforts. Policy-making concerns about equity, the aging workforce, and shortage areas have increased in recent years and better and more data are needed to answer questions in this area. Many states have indicated they are adding data collection activities in this area, or they are merging and revising their certification and personnel databases to be able to have better data.

SUMMARY

This paper has provided some background information about the continuing need for the collection of comparable education data which can be used for policy making decisions. Through the work of the Education Data Improvement Project, data elements have been identified illustrating the disparity among states' definitions of key data elements in the Common Core of Data. A Technical Assistance Plan has been developed for each state

which identifies problems that exist in how the state reports data and suggested solutions for making the data comparable and complete. Policy issues have also been raised in the process of trying to standardize the definitions of the data elements. These policy issues must be addressed more fully at the state or Federal levels before some changes can occur.

Until all states are providing comparable and complete data on public education, state-by-state comparisons have limited utility. The joint efforts of the Federal Government and the state education agencies, however, should be considered a positive step toward acquiring more useful data for policy making decisions at the Federal and state levels.

REFERENCES

National Center for Education Statistics (1974). Combined Glossary: Terms and Definitions From the Handbooks of the State Educational Records and Reports Series. Washington, D.C.: U.S. Government Printing Office.

National Center for Education Statistics (1974). Staff Accounting: Classifications and Standard Terminology for Local and State School Systems. Handbook IV, Revised. Washington, D.C.: U.S. Government Printing Office.

National Center for Education Statistics (1980). Financial Accounting for Local and State School Systems, Handbook II, Revised, Revised. Washington, D.C.: U.S. Government Printing Office.

Selden, R.W. (1987). Status report on Council of Chief State School Officers' educational assessment program. Paper presented at the Joint AERA/NCME Symposium, "Student Achievement Comparisons Among States: Issues and Status."

Wainer, H., Holland, P.W., Swinton, S., and Wang, M.H. (1985). On State Education Statistics. Journal of Educational Statistics, 10(4), 293-325.